City of Santa Fe, New Mexico

memo

Date: September 26, 2012

To: Buckman Direct Diversion Board Members

Through: Brian Snyder, Director, Public Utilities Department and Water Division BKS

From: Alex A. Puglisi, Environmental Compliance Manager, Public Utilities Department Alex A Puglisi

BACKGROUND:

The U.S. Health and Human Services Department (HHS)- Centers for Disease Control and Prevention (CDC) is proposing a change in its recommended optimal level of fluoride in drinking water to 0.70 parts per million (ppm) from the current recommended range of 0.70 ppm to 1.20 ppm. CDC is basically eliminating the upper limit of its current range and setting its new recommended optimal level at 0.70 ppm as it guidance for water-fluoridation in public water supply systems. This revision is based on new health risk assessments performed by both the U.S. Environmental Protection Agency (EPA) and CDC to balance the benefits from tooth decay prevention and the adverse affects of too much fluoride (pitting of enamel and increased risk of bone fractures at concentrations above EPA). There are several reasons for the changes seen over time, including that Americans have access to more sources of fluoride than they did when water fluoridation was first introduced in the United States in the 1940s. Water is now one of several sources of fluoride. Other common sources include dental products such as toothpaste and mouth rinses, prescription fluoride supplements, and fluoride applied by dental professionals. Water fluoridation and fluoride toothpaste are largely responsible for the significant decline in tooth decay in the U.S. over the past several decades ranging from 40%-70% in children and 40% - 60% in adults *(Reference: Centers for Disease Control and Prevention, Ten Great Health Achievements – United States, 1900-1999.)* The City's Water Code, which was adopted during the time when the CDC and EPA's recommended range for fluoridation was 0.70–1.20 ppm, calls for fluoridation of the City's water supply to a level from 0.80 to 1.20 ppm. Naturally occurring concentrations in the Rio Grande have been found over time to fluctuate in concentration from 0.0 ppm to 0.7 ppm with most readings within the range of 0.20 ppm to 0.50 ppm.

EPA has not made a decision about revising its Maximum Contaminant Level (MCL) for fluoride under the Safe Drinking Water Act based on the most recent toxicological studies performed by the agency in conjunction with CDC. The Agency will review the new risk assessment of fluoride that it performed with CDC, along with other information (e.g. analytical methods and treatment feasibility, occurrence and exposure, etc.) to determine whether it is appropriate to revise the drinking water standard in the future. The only action with regards to fluoride that is actually being undertaken by EPA, at this time, is initiation of a review of the maximum amount of fluoride allowed in drinking water. The current enforceable MCL under the Safe Drinking Water Act for

fluoride is 4.0 ppm with a concurrent secondary standard of 2.0 ppm. A secondary standard is a non-enforceable guideline issued by EPA to regulate contaminants that may cause cosmetic effects (skin or tooth discoloration) or aesthetic effects (taste, odor or color). Although water systems are not required to comply with secondary standards, EPA does require that systems notify customers if the average water levels of a contaminant exceed the secondary standard. Future EPA action could result in new primary and secondary standards for the maximum concentrations of fluoride in community water supplies, as well as adoption of the CDC recommended optimal level.

ITEM and ISSUE:

The City of Santa Fe has monitored its fluoride levels in drinking water from the City Well Field, Buckman Well Field, and the Canyon Road Treatment Plant, since EPA's regulation of this constituent. Monitoring at the Buckman Direct Diversion and Entry Points 4A and 5A to the City's system has also been undertaken by Buckman Regional Water Treatment Facility staff since initiation of operations at these facilities. All recent monitored levels for City water sources have been well within EPA's current MCL and Secondary Contaminant Level (SCL) for fluoride, and either at/or below the new recommended optimal fluoridation level of 0.70 ppm currently being proposed by the CDC. Therefore, the proposed CDC recommended optimal concentration for fluoride and any proposed EPA changes in the fluoride MCL will probably not affect, or necessitate any change in, the current operation of the City's water system.

Two (2) bills addressing the continuing practice of fluoridation in the City of Santa Fe Water System are concurrently moving through the committee and public hearing processes of the City Council. The two bills both call for the cessation of fluoridation by the City of Santa Fe, either immediately or within three years from the date of adoption. Should one of these bills be approved by Council, it must then be brought before the BDD Board for approval or disapproval with specific reference to the joint-operation of the Buckman Regional Water Treatment Facility by both the City and County of Santa Fe. Alternately, it is possible that the BDD Board could choose to consider the issue concurrently with the City's legislative process.

The City of Santa Fe's Public Utilities Department is requesting direction from the BDD Board on how the board would prefer to address this issue and the manner in which it should be presented by staff.